

# Curriculum vitae- Philipp Assmy

Role in the project    Project manager     Project partner

## Personal information

First name, Surname:	Philipp Assmy		
Date of birth:	6 October 1971	Sex:	Male
Nationality:	German		
Researcher unique identifier(s) (ORCID, ResearcherID, etc.):	<a href="https://orcid.org/0000-0002-8241-7541">https://orcid.org/0000-0002-8241-7541</a>		
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## Education

Year	Faculty/department - University/institution - Country
2004	PhD in Marine Biology, Natural Science Faculty, University of Bremen and Alfred Wegener Institute, Germany
1999	MSc in Biology, Natural Science Faculty, University of Bremen, Germany

## Positions - current and previous

Year	Job title – Employer - Country
2014-	Senior Research Scientist, Norwegian Polar Institute, Norway
2011-2014	Postdoctoral fellow, Norwegian Polar Institute, Norway
2007-2010	Associate Scientist, Bremen International Graduate School for marine Sciences, “Global Change in the Marine Realm (GLOMAR)”, MARUM – University of Bremen, Germany
2004-2007	Postdoctoral fellow, Alfred Wegener Institute, Bremerhaven, Germany

## Career breaks

2019	Paternal leave for 5 months
2015	Paternal leave for 2,5 months

## Project management experience

Year	Project owner - Project - Role - Funder
2009-2012	Alfred Wegener Institute - Controls on and paleoceanographic utility of the valve size frequency distribution of the Southern Ocean diatom, <i>Fragilariopsis kerguelensis</i> – Co-I – German Research Foundation
2014-2017	Norwegian Polar Institute - Ecosystem modelling of the Arctic Ocean around Svalbard (ArktisMod) – Project partner – Fram Centre Arctic Ocean Flagship

2015-2018	Norwegian Polar Institute - Ice-algal and under-ice phytoplankton bloom dynamics in a changing Arctic icescape (Boom or Bust) – PI – Research Council of Norway
2015-2019	Norwegian Polar Institute - InterDisciplinary study of Arctic sea ice changes and impacts for the society (ID Arctic) – Project partner - Norwegian Ministry of Foreign Affairs
2017-2020	University of Oslo - Diversity, taxonomy and distribution of marine protists in a changing Arctic (TaxMArc) – Project partner – Research Council of Norway
2018-2023	University of Tromsø - The Nansen Legacy – Project partner - Research Council of Norway
2018-2021	OsloMet - Ocean-Air synoptic operations using coordinated autonomous robotic SYStems and micro underwater gliders (OASYS) – Co-I – MarTERA ERA-NET Cofound (H2020)/Research Council of Norway
2019-2022	Norwegian Polar Institute – Ridges: Safe havens for ice-associated flora and fauna in a seasonally ice-covered Arctic Ocean (HAVOC) – Co-I – Research Council of Norway
2020-2022	Norwegian Polar Institute - Physical drivers of ice algal HOTspots in a changing Arctic Ocean (PHOTA) – Project partner – Fram Centre Arctic Ocean Flagship
2020-2024	Finnish Environment Institute – Biodegradable plastic polymers in ocean coastal waters – degrader communities and their enzymes (BIPOD) – Project partner – Research Council for Biosciences, Health and Environment, Finland
2021-2024	Alfred Wegener Institute – Towards a better understanding of the nutrient cycles in the ‘new’ Arctic Ocean and implications for future primary productivity and carbon export (nuArctic) – Project partner – BMBF, Germany
2021-2025	UiT The Arctic University of Norway – Bottom-sea ice Respiration and nutrient Exchanges Assessed for THE Arctic (BREATHE) – Co-I – Research Council of Norway

### Supervision of students

Master's students	Ph.D. students	University/institution - Country
10	3	UiT The Arctic University of Norway; NTNU, Norway; University of Bremen, Germany; Alfred Wegener Institute Germany; Aarhus University, Denmark; University of Porto, Portugal; University of Gothenburg, Sweden

### Other relevant professional experiences

Year	Description - Role
Since 2020	NPI representative in the ARCTOS secretariat
Since 2019	Task force group leader “Particle Dynamics and Vertical flux” within MOSAiC project
Since 2016	Member of the CBMP-Coast Nordic expert group
2014-ongoing	Expert advice for national (e.g. MOSJ, Faglig Forum, Overvåkningsgruppen, Miljødirektoratet) and international (e.g. IPCC, CAFF) management bodies
2014-2018	Subject editor for Polar Research
2007-2010	Representative of research area "Marine Ecology and Biogeochemistry" at the Bremen International Graduate School for Marine Sciences
2006-2010	Teaching in Plankton Ecology and Biological Oceanography at the University of Bremen
Since 2000	Referee for 20 scientific journals (incl. Nature publishing group) and 4 funding agencies
2000-2009	Southern Ocean iron fertilization experiments (EisenEx 2000, EIFEX 2004, LOHAFEX 2009)

## Publication statistics

- 65 peer-reviewed papers in international journals and 6 book chapters
- H-index – Web of Science: 24, Google Scholar: 29
- Research Gate Score: 34.36

## 10-year track record- Philipp Assmy

### 1. Selection of 10 relevant publications from the last 10 years

- Kohlbach, D., **Assmy, P.**, et al. (2021) Multiple trophic markers trace dietary carbon sources in Barents Sea zooplankton during late summer. *Frontiers in Marine Science*, 7, doi: 10.3389/fmars.2020.610248. **P. Assmy designed the study within the context of the Norwegian-led Nansen Legacy project and supervised postdoc D. Kohlbach.**
- Lannuzel, D., Tedesco, L., van Leeuwe, M., Campbell, K., Flores, H., Delille, B., Miller, L., Stefels, J., **Assmy, P.**, et al. (2020). The future of Arctic sea-ice biogeochemistry and ice-associated ecosystems. *Nature Climate Change*, doi: 10.1038/s41558-020-00940-4. **P. Assmy contributed the algal component in this NCC perspectives paper.**
- Ardyna, M, Mundy, C.J., Mayot, N., Matthes, L.C., Oziel, L., Horvat, C., Leu, E., **Assmy, P.**, et al. (2020) Under-ice phytoplankton blooms: Shedding light on the “invisible” part of Arctic primary production. *Frontiers in Marine Science*, 7:243 doi: 10.3389/fmars.2020.608032. **P. Assmy contributed the under-ice bloom component from the N-ICE2015 expedition.**
- Hop H., Vihtakari M., Bluhm B.A., **Assmy P.**, et al. (2020) Changes in Sea-Ice Protist Diversity with Declining Sea Ice in the Arctic Ocean From the 1980s to 2010s. *Frontiers in Marine Science*, 7:243, doi: 10.3389/fmars.2020.00243. **P. Assmy contributed two large datasets to this publication and was heavily involved in the interpretation of the data and writing of the paper.**
- Halbach, L., **Assmy, P.**, et al. (2019) Tidewater glaciers and bedrock characteristics shape the phytoplankton growth environment in a fjord in the Arctic. *Frontiers in Marine Science*, 6:254, doi: 10.3389/fmars.2019.00254. **P. Assmy designed the study and supervised MSc student L. Halbach.**
- **Assmy, P.**, et al. (2017). Leads in Arctic pack ice enable early phytoplankton blooms below snow-covered sea ice. *Scientific Reports*, 7, 40850; doi: 10.1038/srep40850. **P. Assmy led this large interdisciplinary paper from the N-ICE2015 expedition. Highly cited paper (29.2 times per year)**
- Lydersen, C., **Assmy, P.**, et al. (2014). The importance of glacier fronts for marine mammals and seabirds in Svalbard, Norway. *Journal of Marine Systems*, 129, 452-471. **P. Assmy contributed the algal and microbial component to this paper. Highly cited paper (18.1 times per year)**
- **Assmy, P.**, et al. (2013). Thick-shelled, grazer-protected diatoms decouple ocean carbon and silicon cycles in the iron-limited Antarctic Circumpolar Current. *Proceedings of the National Academy of Sciences of the United States of America*, 110(51), 20633-20638, doi: 10.1073/pnas.1309345110. **P. Assmy led this large interdisciplinary paper from the European Iron Fertilization Experiment (EIFEX). Highly cited paper (15.8 times per year)**
- **Assmy, P.**, et al. (2013). Floating ice-algal aggregates below melting Arctic sea ice. *PLOS ONE*, 8(10), e76599, doi: 10.1371/journal.pone.0076599. **P. Assmy led this paper on late summer ice algal dynamics in the marginal ice zone north of Svalbard.**
- Smetacek, V., Klaas, C., Strass, V.H., **Assmy, P.**, et al. (2012). Deep carbon export from a Southern Ocean iron-fertilized diatom bloom. *Nature*, 487, 313-319. **P. Assmy was heavily involved in the interpretation of the data and writing of the paper. Highly cited paper (24.4 times per year)**

### 2. Selection of research monographs

- **Assmy, P.**, et al. (2019). Algal blooms, *In: Encyclopedia of Microbiology*, (Moselio Schaechter, Editor), 4<sup>th</sup> edition, Oxford: Elsevier, doi: 10.1016/B978-0-12-809633-8.20959-X. **P. Assmy led this book chapter together with V. Smetacek.**

- Hegseth, E.N., **Assmy, P.**, et al. (2019). Phytoplankton seasonal dynamics in Kongsfjorden, Svalbard and the adjacent shelf, *In: Advances in Polar Ecology*, doi: 10.1007/978-3-319-46425-1\_6. **P. Assmy co-led this chapter in the Ecosystem Kongsfjorden book with E.N. Hegseth.**
- **Assmy, P.** (2004). Temporal development and vertical distribution of major components of the plankton assemblage during an iron fertilization experiment in the Antarctic Polar Frontal Zone. PhD dissertation, University of Bremen.

### **3. Selected invited presentations**

- “The Role of Diatoms in Polar Marine Ecosystems and Biogeochemical Cycles: Lessons Learned from the Southern Ocean and Arctic Ocean”, invited presentation at Gordon Research conference on Polar Marine Science, 14-20 March 2015, Lucca (Barga), Italy
- “Ecology of the ice-associated ecosystem north of Svalbard”, invited presentation at the 4<sup>th</sup> pan-Arctic Symposium, 20-26 October 2017, Motovun, Istria, Croatia
- “Primary production and under-ice blooms in a changing Arctic Ocean”, keynote presentation at the XIII Portuguese Conference on Polar Sciences, 29-30 November 2021, Porto, Portugal

### **4. Research expeditions that the applicant Principal Investigator has led**

- Leading the phytoplankton component of the annual Kongsfjorden cruises since 2013
- Co-leading the biological work package of the Norwegian young sea ICE (N-ICE2015) expedition
- Designing the Kongsfjorden tidewater glacier cruises in 2016, 2017 and 2020
- Co-chief scientist on the Nansen Legacy cruise Q2 in April/May 2021 to the Barents Sea with RV Kronprins Haakon

### **5. Selected contributions to the early careers of excellent researchers**

- Supervision of MSc student Linda Armbrrecht (thesis title: “Cell death and aggregate formation in the giant diatom *Coscinodiscus wailesii*.” (published in *Journal of Experimental Marine Biology and Ecology*), defended autumn 2010, University of Bremen). L. Armbrrecht is now pursuing a postdoctoral fellow at Macquarie University, Australia with Associate Prof. Leanne Armand.
- Supervision of MSc student Laura Halbach (thesis title: “Mechanisms determining phytoplankton dynamics in front of active tidewater glaciers in Kongsfjorden, Svalbard.” (published in *Frontiers of Marine Science*; see above), defended autumn 2018, University of Gothenburg). L. Halbach is now pursuing a PhD at Aarhus University with Prof. Alexandre Magno Barbosa Anesio.
- Supervision of PhD Hanna M. Kauko (thesis title: “Light response and acclimation of microalgae in a changing Arctic.” (including 8 peer-reviewed papers) ISBN 978-82-326-3330-2, defended on 21 September 2018, NTNU). H. Kauko received a postdoctoral fellow position at NPI focusing on Southern Ocean ecosystem research and management.
- Supervision of postdoctoral fellow Mar Fernandez-Mendez 2015-2017 (recipient of the prestigious Helmholtz Young Investigator Group at AWI: “Silicic acid Decline Effect on Arctic Marine Ecosystems” (SiDe-EFFECT)).